

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of

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**Empowering Consumers to Avoid Bill
Shock**

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CG Docket No. 10-207

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Consumer Information and Disclosure

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CG Docket No. 09-158

COMMENTS OF THE NATIONAL CONSUMERS LEAGUE

October 12, 2016

Executive Summary

American consumers, like consumers around the world, love to take their smartphones and other connected devices with them wherever they go. Smartphones provide international travelers with a convenient connection to the Internet, generating immense consumer benefits. Consumers' desire to connect on the go does not end at our national borders. Indeed, the estimated 73 million American consumers who travel outside the United States annually often depend on their mobile devices to find directions, translate foreign languages, and stay connected to friends and colleagues back home.

Unfortunately, using smartphones and other mobile devices abroad can mean bringing home something more than souvenirs from their trip: bill shock. Bill shock occurs when consumers receive charges on their phone bills far beyond what they expect. Excessively high international mobile roaming ("IMR") service rates charged by U.S. wireless carriers are a significant contributor to consumer bill shock. Consumer survey data indicates high levels of consumer concern about steep IMR fees. The impact of this data is reflected in media reports of consumers inadvertently incurring hundreds or thousands of dollars in international roaming fees.

Roaming fees are a big business for the wireless industry. By 2018, global wireless carrier revenue from IMR data roaming fees alone (excluding voice and text message roaming revenue) will reach an estimated \$42 billion. There is general agreement among experts that IMR retail rates are set far above the cost to actually provide these services.

To address consumer concerns about high IMR pay-as-you-go costs, U.S. wireless carriers sell a variety of add-on IMR packages. However, a National Consumers League ("NCL") analysis of these packages found that they provide very low data allotments or slow speeds (and often both) at very high per-megabyte prices. These IMR packages do not come close to providing the usage allowances consumers are accustomed to when they are in the United States. Affordable and useful alternatives to U.S. carriers' IMR packages, such

as purchasing a foreign carrier's SIM card and prepaid service plan, are readily available to American travelers. Unfortunately, NCL's review of U.S. wireless carriers' websites found no instances where carriers made their customers aware of such alternatives.

The record of the Federal Communications Commission's ("Commission") 2010-2011 bill shock proceeding acknowledged the role that IMR services play in consumer bill shock. While the Commission's 2011 decision to allow the U.S. wireless industry to institute a voluntary notification regime may have prevented some consumers from experiencing bill shock, it is unclear whether the notifications alone have had a measurable impact on overall rates of bill shock. In addition, as commenters in the docket noted, English-only notifications can leave non-English speaking consumers particularly vulnerable to bill shock. Given the dramatic increase in consumers' use of smartphones and data-intensive applications, the current notification regime may be losing whatever efficacy it may have once had in addressing the problem.

Consumers in the U.S. deserve anti-bill shock protections that are at least on par with consumers overseas. Users in Europe and Asia are increasingly benefiting from anti-bill shock regulations related to international roaming. For example EU regulations will eliminate fees for intra-EU roaming by 2017. IMR data rates will be reduced by two-thirds in the six Gulf Cooperation Council countries by 2020. The Asia Pacific Economic Council has promulgated best practices for member countries that encourage efforts to promote consumer education about alternatives to IMR services. The Organization for Economic Co-Operation and Development recommends that if member states find that market dynamics are not sufficient to produce reasonably competitive rates, price regulation of wholesale and retail IMR rates should be considered. The proposed Trans-Pacific Partnership treaty would also require the Commission to investigate the role that IMR data rates play in consumer bill shock.

NCL urges the FCC to take immediate action to address the continuing problem of consumer bill shock stemming from IMR services. Specifically, we ask that the Commission

conduct a refresh of bill shock docket record. This would encourage industry and consumer groups to examine whether the current bill shock notification regime has reduced bill shock rates and if there are additional opportunities for the Commission to take action to reduce IMR-related bill shock. Second, we ask the Commission to investigate whether the bill shock protections consumers in the EU and elsewhere enjoy can be extended to U.S. consumers. Should the record on bill shock and IMR find significant consumer harm, we ask that the Commission adopt regulations that protect consumers from IMR-related bill shock.

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I. Introduction

The National Consumers League (“NCL”) respectfully submits these comments to the Federal Communications Commission (“FCC” or “Commission”) related to the above-captioned proceeding.¹ NCL previously submitted comments on this issue in CG Docket No. 09-158 “Measures Designed to Assist U.S. Wireless Consumers to Avoid ‘Bill Shock.’” This filing continues our effort to inform the record in this proceeding.

The FCC concluded in 2010 that bill shock is a significant consumer concern, affecting tens of millions of wireless users every year.² In 2011, when former FCC Chairman Julius Genachowski announced a voluntary agreement between the Commission and the wireless industry, he stated that the FCC was adopting a policy of “trust but verify” on bill shock.³ NCL urges the Commission to hold true to this policy.

The wireless industry and consumer usage patterns on wireless devices, particularly smartphones, has changed significantly since 2011, when the wireless industry agreed to adopt voluntary anti-bill shock safeguards. Since 2011, smartphone penetration among U.S. consumers has increased from 35 percent to 72 percent of U.S. adults.⁴ Today, smartphones run dozens of applications that use significant amounts of data through automatic updates and processes that run in the background.

Given continuing reports from consumers and businesses about bill shock stemming from international data roaming, we ask the FCC to examine the role that IMR services—particularly IMR *data* services—play in incidences and severity of consumer bill shock.

¹ NCL wishes to acknowledge the invaluable contributions of NCL interns and policy fellows in producing

² Empowering Consumers to Avoid Bill Shock; Consumer Information and Disclosure, 75 Fed. Reg. 72,773 (proposed Nov. 26, 2010)(to be codified at 47 C.F.R. pt. 64). Online:29 Sept. 2015 (“2010 NPRM”)

³ Genachowski, Julius. “Bill Shock Event.” *FCC*, Oct. 17, 2011, https://apps.fcc.gov/edocs_public/attachmatch/DOC-310290A1.pdf.

⁴ Pew Research Center, “Technology Device Ownership: 2015,” October 29, 2015, <http://www.pewinternet.org/2015/10/29/technology-device-ownership-2015/> (“Pew 2015”); Pew Research Center, “Smartphone Ownership and Internet Usage Continues to Climb in Emerging Economies,” Feb. 22, 2016, <http://www.pewglobal.org/2016/02/22/smartphone-ownership-and-internet-usage-continues-to-climb-in-emerging-economies/> (“Pew 2016”).

With this goal in mind, the following comments are intended to further inform the record of this proceeding regarding:

- the supracompetitive cost of international mobile roaming (“IMR”) data services for consumers;
- the continuing concern expressed by significant numbers of consumers about IMR-related bill shock;
- the role that modern smartphone and mobile device technology plays in occurrences of IMR-related bill shock;
- the lack of affordable plans for overseas travel that allow consumers to use their devices as they do in the United States;
- the lack of efforts by the wireless industry to educate customers about lower-cost alternatives to IMR services;
- the impact of current industry notification methods on non-English speaking consumers; and
- efforts by foreign regulators to address the high cost of IMR services.

Finally, these comments offer recommendations for regulatory action to address the changing nature of bill shock since the Commission last took action on this issue in 2011.

II. Background on Bill Shock and International Mobile Roaming

Wireless bill shock occurs when a subscriber receives a bill that is unexpectedly high. IMR fees are a significant contributor to consumer bill shock, as the Commission found in its 2010 *Notice of Proposed Rulemaking* on this issue.⁵ Wireless roaming occurs when a subscriber uses cellular voice, text or data services on a mobile device while connected to a different wireless carrier’s cellular network than her own. Wireless roaming can occur on domestic networks (*e.g.* a T-Mobile consumer may roam when she connects to

⁵ 2010 NPRM, *supra*, note 1.

AT&T's domestic network) or internationally (*e.g.* an AT&T subscriber connects to the French company Orange's network while traveling in France). Whether a consumer roams domestically or internationally, mobile roaming services are governed by contractual roaming agreements between wireless carriers. A subscriber can incur significant fees through the use of voice, text or data services while roaming. In other cases, roaming may not incur a fee at all, but be subject to service limitations like roaming data caps, the exceeding of which results in throttling of service.

Mobile roaming services are a significant revenue source for the wireless industry. Juniper Research found that mobile roaming services generated \$57 billion for telecommunications industry globally in 2013. By 2018, global roaming revenue is projected to rise to \$90 billion.⁶ A separate study by Juniper estimates that revenues from international mobile data roaming alone will reach \$42 billion by 2018, representing 47 percent of the global mobile roaming revenue, compared to an estimated 36 percent in 2013.⁷ Global analyst Ovum reached a similar conclusion, estimating that by 2019 over half of all global roaming revenues will be driven by fees on mobile data.⁸

IMR fees are a significant source of profits for the wireless industry. This conclusion has been acknowledged by the International Telecommunications Union (ITU), which stated that:

"[d]espite price reduction for [international mobile roaming] and the emergence of a range of different technologies which, though not always offering close substitutes to roaming, may help travellers limit their expenditures, there is

⁶ Kasperkevic, Jana. "Are these cellphone Charges for Roaming or Ransom?" *The Guardian*, July 11, 2014, <http://www.theguardian.com/money/us-money-blog/2014/jul/11/mobile-phone-cellphone-charges-roaming-fees>.

⁷ Juniper Research. "Mobile data roamers to generate \$42 billion in revenues by 2018, representing nearly half of roaming revenue," Jan. 14, 2014, <http://www.juniperresearch.com/press-release/mobile-roaming-pr2>.

⁸ Verma Nangia, Nishi. "Ovum says mobile data will account for more than half of global roaming revenues by 2019." *Ovum*, Nov. 20, 2014, http://www.ovum.com/press_releases/ovum-says-mobile-data-will-account-for-more-than-half-of-global-roaming-revenues-by-2019/.

nevertheless general agreement that prices diverge significantly from costs and that actions to reduce prices and protect users are essential.”⁹

Expanding on this theme, the ITU found that:

“The analyses and reviews of international mobile roaming that have been undertaken by all the international organisations, regional bodies and individual countries have reached similar conclusions. These are that retail prices for international mobile voice, messaging and data roaming are significantly high, the prices have no relation to the domestic mobile prices for these services and are significantly higher than the underlying costs for the provision of these services.”¹⁰

Regulators in other countries have echoed this conclusion. For example a June 2008 report conducted by KPMG for the Australian Department of Broadband, Communications and the Digital Economy found that:

International technical studies have calculated that international mobile roaming costs should be 10 to 20 per cent higher than non-roamed call costs. However, the same studies (including a detailed study of current international roaming charges performed by the European Commission) have concluded that the average retail charge for an international roamed mobile call is more than five times higher than the approximate cost of providing the wholesale service, and on received mobile roaming calls, carriers can realise retail margins of up to 400 percent.¹¹

In 2007, the European Commission reached a similar conclusion, finding that:

⁹ International Telecommunications Union, “International Mobile Roaming Services: Facilitating Competition and Protection Users,” Nov. 2013, p. 1. http://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-EF.IMR02-2013-PDF-E.pdf.

¹⁰ *Ibid.*, p. 11.

¹¹ Department of Broadband, Communications and the Digital Economy, “Report of findings on: International Mobile roaming charges,” June 2008, p. 2-3, <http://docslide.us/documents/kpmg-report-of-findings-on-international-mobile-roaming-charges.html>.

Recent studies and investigations from the European Commission nevertheless highlight, the existence of unjustifiably high international roaming rates, and the ineffectiveness of the current regulatory framework which monitors anti-competitive behaviour in the firms.

Despite repeated warnings and numerous initiatives by the EU Institutions, the prices of international roaming rates still remain unjustifiably high: the packages offered by mobile telephone operators in response to the input of the EU present excessively high costs which do not reflect the actual costs of the operators of such services, and therefore constitute a deterrent to the use of mobile telephones by foreign consumers.¹²

The high price of IMR service is a significant concern for consumers and affects their use of mobile devices while traveling. A March 2015 study by roaming specialist group Syniverse found that 47 percent of consumers across the United States, United Kingdom, and German markets believed that roaming charges were too high. Forty-two percent of consumers in these markets said they would switch carriers for a 50 percent reduction in roaming fees, and 60 percent of all consumers in the study said they would switch to another carrier if it had free or all-inclusive roaming packages.¹³

This data is not surprising given the high fees U.S. wireless carriers charge for IMR services. An NCL analysis of the four major American wireless carriers'¹⁴ IMR pricing found that pay-as-you-go IMR rates typically range from \$2-10 per megabyte (MB) of data, \$0.20-\$3.00 per minute on voice, and as much as 50¢ per SMS text message. When consumers are not aware of these prices, don't understand how the roaming pricing model of their carrier works or they roam inadvertently, they can and do face roaming-related bill shock.

¹² Policy Department Economic and Scientific Policy, "TECHNICAL ISSUES ON ROAMING: Transparency, Technical Aspects and Data Overview related to the Proposed Regulation on Roaming," *European Parliament*, Jan. 2007, [http://www.europarl.europa.eu/RegData/etudes/note/join/2007/382177/IPOL-ITRE_NT\(2007\)382177_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/note/join/2007/382177/IPOL-ITRE_NT(2007)382177_EN.pdf).

¹³ Skinner, Tim. "Roaming Bundles Putting Operator Revenues at Risk - Report." *Telecoms*. Telecom.com, March 3, 2015, <http://telecoms.com/403291/roaming-bundles-putting-operator-revenues-at-risk-report/>.

¹⁴ i.e., AT&T Mobility, Sprint, T-Mobile and Verizon Wireless.

In response to these market dynamics, regulators across the globe have taken action to address the high cost of IMR services. Most significantly, consumers in the European Union (“EU”) will see fees for intra-EU mobile roaming *eliminated* by 2017 under the new EU regulations.

American consumers have received no such relief. In May 2010, the Commission issued a *Public Notice* asking for public comment regarding the issue of bill shock.¹⁵ The FCC also published survey results the same month, which found that 1 out of every 6 consumers, or around 30 million subscribers, had experienced bill shock.¹⁶ A number of public interest organizations, including NCL, filed comments in response to the Commission’s *Public Notice*.¹⁷ Those comments highlighted numerous cases of consumer bill shock where subscribers were unaware of roaming and other costs and received significantly higher-than-expected bills. NCL at the time urged the FCC to enact bill shock rules similar to the ones put in place by the EU in 2010.¹⁸

After collecting public comments, the FCC issued a *Notice of Proposed Rulemaking* in October 2010. These proposed rules would have required wireless carriers to provide:

- usage notifications when consumers approached the allotted limit for voice, text, and data usage;
- usage notifications when consumers reached the allotted limit for voice, text, and data usage;

¹⁵ Federal Communications Commission, “Comment Sought on Measures Designed to Assist U.S. Wireless Consumers to Avoid ‘Bill Shock,’” May 11, 2010, <https://transition.fcc.gov/DA-10-803A1.pdf>.

¹⁶ Federal Communications Commission, “FCC Survey Confirms consumers Experience Mobile Bill Shock and Confusion About Early Termination Fees,” May 26, 2010, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-298415A1.pdf.

¹⁷ National Consumers League et al. “Re: CG Docket 10-207 Empowering Consumers to Avoid Bill Shock; CC Docket 09-158 Consumer Information and Disclosure,” NCL, Feb. 18, 2011, <http://apps.fcc.gov/ecfs/document/view?id=7021030133>.

¹⁸ European Commission, “Telecoms: Mobile Phone Customers Entitled to Protection from Data-roaming bill shock as from 1st March 2010,” Mar. 1 2015, http://europa.eu/rapid/press-release_IP-10-215_en.htm?locale=en.

- notifications when consumers could be charged higher rates than normal or when services would be covered by their monthly plans; and
- clear, conspicuous, and ongoing disclosure of any tools or services that allow subscribers to set usage limits or monitor usage balances, including any applicable charges for those services.¹⁹

The October 2010 *NPRM* was put on hold in October 2011 when CTIA, the Commission, and Consumers Union reached an agreement in which the wireless industry agreed to implement the proposed rules voluntarily, as opposed to by rule.²⁰ Under the terms of the agreement, CTIA and its member companies agreed to provide at no charge:

- a notification to consumers of currently-offered and future domestic wireless plans that include limited data allowances when consumers approach and exceed their allowance for data usage and will incur overage charges;
- a notification to consumers of currently-offered and future domestic voice and messaging plans that include limited voice and messaging allowances when consumers approach and exceed their allowance for those services and will incur overage charges; and
- a notification to consumers without an international roaming plan/package whose devices have registered abroad and who may incur charges for international usage.
- clear and conspicuous disclosure of tools or services that enable consumers to track, monitor and/or set limits on voice, messaging and data usage.²¹

¹⁹ 2010 NPRM, *supra*, note 1.

²⁰ CTIA-The Wireless Association, "CTIA, Federal Communications Commission and Consumers Union Announce Free Alerts to Help Consumers Avoid Unexpected Overage Charges," Oct. 27 2011, <http://www.ctia.org/resource-library/press-releases/archive/ctia-federal-communications-commission-consumers-union-announce-free-alerts>.

²¹ CTIA-The Wireless Association, "Consumer Code for Wireless Service," Oct. 30 2015, Sec. 11, <http://www.ctia.org/docs/default-source/default-document-library/ctia-consumer-code-for-wireless-service.pdf?sfvrsn=2>.

When the agreement was announced, Chairman Genachowski stated that the Commission “will, however, be closely monitoring industry practices to make sure that all carriers provide this necessary information to consumers.”²²

As of April 2013, under the terms of CTIA’s Consumer Code for Wireless Service, 97 percent of all U.S. wireless customers receive the benefits of this notification regime, which covers voice, text, data, and international roaming on all major U.S. carriers.²³ We believe that the voluntary notification regime now appears to have become justification for continuing to charge excessive IMR rates. In our view, requiring notification of a carrier’s intent to charge its subscribers supracompetitive rates, while permitting the practice to continue unabated, is not effective consumer protection. Since the October 2011 decision to put the bill shock *NPRM* on hold, we are unaware of any publicly available comprehensive study from the FCC or other organization to evaluate whether this voluntary notification regime has resulted in a decrease in instances of consumer bill shock.

III. Consumers Concerns About Bill Shock Persist Despite Notification Measures

According to the U.S. Department of Commerce, more than 73 million Americans traveled overseas in 2015.²⁴ According to the Pew Research Center, 72 percent of Americans own a smartphone, up from 35 percent in 2011, when the FCC last took action to address bill shock.²⁵ Combining the Commerce Department and Pew data, we estimate that more than 52 million U.S. smartphone users traveled abroad in 2015. A significant percentage of those travelers are likely to have brought their smartphones with them when they traveled internationally and were therefore at risk of IMR-related bill shock.

²² Genachowski, *supra*, note 2.

²³ “Helping Consumers Avoid Bill Shock,” *FCC*, Sept. 25 2014, <https://www.fcc.gov/bill-shock-alerts>.

²⁴ U.S. Department of Commerce, International Trade Administration, National Travel and Tourism Office (NTTO), “U.S. Citizen Traffic to Overseas Regions, Canada & Mexico 2015,” <http://travel.trade.gov/view/m-2015-0-001/index.html>.

²⁵ *Pew 2015*; *Pew 2016*.

Despite measures taken by the FCC and the wireless industry between 2011 and 2013 to provide consumers with notification alerts, bill shock remains a significant concern for many travelers. Data on international roaming suggests that much of today's bill shock occurs due to IMR data services. For example, travel communications retailer Telestial recently partnered with research firm Serious Insights to survey consumers about their experiences with international data use while traveling outside the United States. Eighty-two percent of international travelers reported they worry about the cost of data when traveling overseas.²⁶ However, only 43 percent of those surveyed had ever purchased a local SIM card to lower costs.²⁷ Most consumers instead stated that they would simply not use their phone internationally or use it significantly less out of fear of high roaming fees.²⁸

There is also ample evidence in the media of consumers reporting instances of data roaming-related bill shock, sometimes totaling hundreds or thousands of dollars.

Examples from the public record include:

- **Sery Kim, a Washington-based attorney and writer.** Prior to a trip to Paris, France she verified her international plan with Sprint, her cellular provider. She also limited all cell phone use and made sure to utilize WiFi hotspots when available, among other precautions. Still, she reportedly incurred "hundreds in fees." Kim now turns off her U.S. phone and uses a disposable handset when traveling in order to avoid roaming fees.²⁹
- **John Ellis, an adjunct professor of anesthesiology and critical care at the University of Pennsylvania.** Ellis returned home from a trip to China to a

²⁶ Rasmus, Daniel, "Serious Insights/Telestial Survey Results: American Travelers: Not Masters of International Data," *Serious Insights*, p. 3, May 27, 2015, <http://www.seriousinsights.net/wp-content/uploads/Telestial-Survey-Final.pdf> (sample size of 257 consumers).

²⁷ *Ibid.* at 6.

²⁸ *Ibid.* at 3.

²⁹ Elliott, Christopher, "Don't Be a Data Dummy When you Travel Overseas," *USA Today*, April 26, 2015, <http://www.usatoday.com/story/travel/columnist/2015/04/26/data-roaming-charges/26294743>.

\$2,367 phone bill for downloaded data, even though he carefully tracked his usage. Dr. Ellis increased his data plan with his carrier before leaving on a trip to Asia because he knew that he would be downloading some data. He kept track of his usage and even got a warning saying he was going to go over his limit. But when the AT&T bill came, "the charges were greatly in excess of what I expected," he said.³⁰

- **Jeff Reifman, a Seattle-based technology consultant and writer.** In June 2014, Reifman—an AT&T subscriber—reportedly incurred \$750 in fees for less than 60 seconds of data use while traveling in Canada (at pay-as-you-go data roaming rates of \$15.36 per megabyte).³¹
- **Chuck Harris, a JetBlue flight attendant.** Harris turned on his phone while vacationing in the Dominican Republic to call plumbers to fix a broken pipe at his home in New York. He returned home to a \$400 bill from Verizon Wireless. The bill included data charges, which Verizon Wireless told him had been incurred because his phone was set to automatically update apps and other features. Repeated calls to Verizon Wireless succeeded in only getting the charges reduced by \$60.³²
- **Ellen Creager, a Los Angeles Times reporter.** While Creager was traveling in Greenland she turned off data roaming. She nevertheless incurred \$1,106 in roaming charges. She hypothesized that this could have been caused apps searching for data in the background, foreign carriers pinging her phone, and inconsistent WiFi hotspot coverage. She reportedly did not receive the

³⁰ McCartney, Scott. "Stuck with a \$10,000 Phone Bill," *Wall Street Journal*. April 18, 2012. Online: <http://www.wsj.com/articles/SB10001424052702304331204577351824213467562>

³¹ Reifman, Jeff, "Yes you can Spend \$750 in International Data Roaming in one Minute on AT&T," June 4, 2014, <http://jeffreifman.com/2014/06/04/yes-you-can-spend-750-in-international-data-roaming-in-one-minute/>.

³² McCartney, Scott. "Stuck with a \$10,000 Phone Bill," *Wall Street Journal*. April 18, 2012. Online: <http://www.wsj.com/articles/SB10001424052702304331204577351824213467562>

required notification of increased charges, nor was her data disabled after reaching the purported \$500 threshold.³³

A common theme that emerges from these testimonials is the role of unintended data use and high international data roaming rates in instances of consumer bill shock. This is unsurprising given the way that modern smartphones and mobile devices operate combined with the high cost of international mobile data roaming services.

For example, a hypothetical consumer who wishes to quickly check emails while traveling may briefly turn on mobile data roaming, with the full understanding that low-bandwidth use may incur roaming fees. However, since many smartphone apps are configured to update automatically, the consumer may inadvertently incur significant roaming fees when their device consumes tens or hundreds of megabytes of data due to apps automatically updating. In addition, many apps use significant amounts of data in the background as part of their normal operation (e.g. checking sports scores or stock quotes, accessing location-based services, etc.).

Through this inadvertent data consumption, a consumer could incur significant roaming fees even if they were to turn off automatic updates. This is not a hypothetical concern. According to Yahoo! Aviate, users of their app launcher app (which has been downloaded 5 million times on the Google Play Store) have an average of 95 apps installed, 35 of which are used every day.³⁴

IV. High Fees, Low Data Allotments and Slow Speeds for IMR Data Services are Common Factors in the U.S. Wireless Industry

³³ Creager, Ellen, "Overseas Smartphone Fees Can be a Horror Story," *Los Angeles Times*, April, 28 2013, <http://articles.latimes.com/2013/apr/28/travel/la-tr-money-20130428>.

³⁴ Sawers, Paul, "Android users Have an Average of 95 Apps Installed on Their Phones, According to Yahoo Aviate Data," *TNW News*, Aug. 26, 2014, <http://thenextweb.com/apps/2014/08/26/android-users-average-95-apps-installed-phones-according-yahoo-aviate-data/>.

Use of IMR services is an expensive proposition for most American consumers. High fees, small data allotments, and slow speeds are common in the IMR data service marketplace. To examine these factors, NCL reviewed the IMR data service pricing plans advertised on the websites of the four major U.S. wireless carriers (AT&T, Sprint, T-Mobile and Verizon Wireless).

This analysis found that data roaming rates vary widely in price, data allotment, overage rates, and countries covered. For all four carriers, using data roaming without a pre-purchased roaming package was either extremely expensive (e.g., \$2.05/MB for pay-as-you-go international data roaming on AT&T and Verizon Wireless) or limited to 2G speeds (e.g. Sprint and T-Mobile), which precludes many typical smartphone uses such as web browsing, music or video streaming. Rates for connecting to cellular networks while vacationing on cruise ships are even more expensive, with rates as high as \$10.24/MB on AT&T and \$15/MB on T-Mobile.

There was also wide variation in the number of countries covered by the carriers' roaming services. For example, while AT&T's roaming packages cover 200 countries, T-Mobile's and Sprint's plans cover 140+ countries, and Verizon Wireless's popular Travel Pass Plan slightly more than 100 countries.

The high pay-as-you-go data roaming rates, in particular, can quickly lead to bill shock. For example, the most popular app on the Google Play Store is the Facebook mobile app, which is approximately 43 MB in size. At pay-per-use rates of \$2.05/MB, a single update to the Facebook app could cost a consumer approximately \$88.15 in roaming charges. With apps updating, on average, once every 30 days, it is likely at least one, and possibly more apps will need to update on any given day.³⁵ Both the Android and iOS mobile operating systems are set to automatically update apps, by default. Therefore, a consumer who connects to an international data roaming network for even a short time

³⁵ Kimura, Hugh, "25 Top iOS Apps and Their Version Update Frequencies," *Sensor Tower Blog*, Apr. 15, 2014, <https://sensortower.com/blog/25-top-ios-apps-and-their-version-update-frequencies>.

period (to check emails, for example) could incur significant international data roaming fees without any other interaction with the device due to automatic updates. Even consumers who affirmatively purchase international data roaming packages can quickly find that their data allotments are exhausted by automatic updates, requiring the purchase of additional data to continue use.

Detailed descriptions of currently advertised international data roaming rates and packages for the four major U.S. wireless carriers are available in the Appendix.

V. Changing Smartphone Usage Patterns Require More Data, While IMR Packages Provide Less

None of the four major U.S. wireless carriers provide international data roaming plans whose data allotments comport with typical American consumers' regular usage patterns. According to NPD Group, the proliferation of smartphones, and the concurrent growth of our reliance upon them, has resulted in the average smartphone owner using 2.9 GB of cellular data per month (approximately 97 MB per day).³⁶ To put this in context, in order for a typical American consumer traveling in an IMR environment to use her smartphone as she does in the U.S. (i.e. at 3G or higher speeds, consuming approximately 97 MB of cellular data per day) she would need to spend a minimum of \$70 per day to purchase a suitable IMR data package from a major U.S. wireless carrier. If a consumer wished to use more data-intensive applications, such as streaming video or online gaming, the costs to buy a suitable IMR data package would be far higher.

American travelers are doubly burdened by expensive roaming costs and low data caps that prevent them from using their smartphones as they do when not traveling. According to Pew Research Center, 72 percent of American adults now own a smartphone,

³⁶ Brandeisky, Kara, "Here's How to Figure Out How Much Cellphone Data You Need," *Time*. June 18, 2015, <http://time.com/money/3920131/cellular-data/>.

up from 35 percent in 2011.³⁷ According to the 2015 survey, 37 percent of users reach their monthly allowable data cap on occasion and 27 percent, at least occasionally, encounter a bill that is “substantially higher” than they thought it would be. This occurs in the context of most consumers using typical domestic wireless plans. As the Pew data suggests, smartphone data use will only continue to grow, and thus the majority of consumers will still be incentivized to pay excessive amounts for IMR services when traveling.

Smartphones are a critical tool for consumers while traveling. For example, Pew found that 68 percent of smartphone users use their devices to follow breaking news, 67 percent for driving directions, 58 percent to learn about community events, 62 percent to look up information about a health condition, 57 percent to do online banking, 40 percent to look up government services or information, and 25 percent to get public transit information.³⁸ Timely, affordable access to such information can be critical when traveling. In particular, navigation and translation apps that help consumers manage logistical and social challenges have become basic needs for many travelers.

VI. Existing Carrier-Provided Education Materials Fail to Advise Consumers About Lower-Cost Options

An NCL review of the FAQ and travel tips sections of the four major U.S. carriers’ websites found a lack of information about alternatives to high pay-as-you-go roaming rates and expensive IMR data packages. Specifically, none advised consumers that they can often save significant money and enjoy far larger data allotments and unlimited text messages and voice minutes by buying a local SIM card and prepaid data plan in the country they are visiting.^{39 40 41 42}

³⁷ *Pew 2015; Pew 2016.*

³⁸ Smith, Aaron, “Chapter Two: Usage and Attitudes Towards Smartphones,” *Pew Research Center*, April 1, 2015, <http://www.pewinternet.org/2015/04/01/chapter-two-usage-and-attitudes-toward-smartphones/>.

³⁹ “International Travel Tips From AT&T,” *AT&T*, July 24, 2015, <http://www.att.com/shopcms/media/att/2015/shop/wireless/documents/Travel-Tips.pdf>.

Purchasing a prepaid local SIM card is a *drastically cheaper and more functional option* than purchasing a U.S. carrier's IMR package or incurring pay-as-you-go international roaming rates. For example, in the United Kingdom, Vodafone advertises a 30-day, SIM-only option for £29 (about \$45) that is fully usable with most unlocked GSM-based smartphones and offers unlimited talk and text, and 8 GB of monthly data. This is more than 7 times greater than the highest possible data allowance from any of the four major U.S. carriers at approximately one third of the price.⁴³ This is not limited to Vodafone. For example, French wireless carrier Bouygues offers a no-commitment, 30-day plan, which costs €40, or about \$50 and provides unlimited text and voice minutes and 10GB of data.⁴⁴ The plan is also fully compatible with an unlocked GSM-based smartphone via a prepaid SIM card.

U.S. wireless carriers will almost certainly balk at suggestions that they recommend a foreign carrier's local SIM card as an option for their traveling subscribers given IMR's role as a significant source of revenue. Unfortunately, consumers are paying the price for this lack of information, to the tune of billions of dollars in fees. We are confident that if consumers were made aware of the tremendous savings they could enjoy by using a local SIM card, U.S. wireless carriers would be incentivized to reduce excessive IMR rates and make their add-on IMR packages more useful to the average American traveler's usage needs.

⁴⁰ "Sprint Global Roaming," last accessed January 29, 2016, <http://www.sprint.com/landings/international-value-roaming/>.

⁴¹ "International Plans," *T-Mobile USA*, last accessed Jan. 29, 2016, <http://www.t-mobile.com/optional-services/roaming.html>.

⁴² "International services while traveling outside the U.S.," *Verizon Wireless*, last accessed Jan. 29, 2016, <http://www.verizonwireless.com/landingpages/international-travel/>.

⁴³ "SIM Only Bundles," *Vodafone*, last accessed Sept. 29, 2015, <https://www.vodafone.co.uk/shop/bundles-and-sims/sim-only-deals/index.htm>.

⁴⁴ "Forfait," *Bouygues Telecom*, last accessed Sept. 29, 2015, <https://www.bouyguestelecom.fr/shop/cart>.

VII. Current Bill Shock Notifications Overlook Minority Populations

A consumer who is already confused by carriers' complex data roaming plans may be even more vulnerable if their first language is not English. There is no requirement in CTIA's *Consumer Code for Wireless Service* for wireless carriers to provide roaming notifications in a language other than English. This potentially puts non-English speaking consumers in a situation where they may not understand what charges they may incur. We are not suggesting that making a language other than English available to consumers is the remedy for excessive rates. However, addressing this bias toward English-only notification could reduce the risk of bill shock.

This concern has been expressed in the record of the Commission's bill shock proceeding by multiple commenters. For example, the Asian American Justice Center voiced concern that non-English speaking consumers receive usage alerts only in English.⁴⁵ The National Hispanic Media Coalition expressed similar concerns for Spanish-speaking consumers, and noted that any consumer outreach and education programs should be presented in accessible languages, and aimed at numerous and diverse communities.⁴⁶ Further, the National Asian American Coalition stated that bill shock most adversely affects minority populations and consumers without English proficiency, but that, due to lack of technology or language proficiency these populations might be woefully underrepresented in the record through complaints, reports, and filings.⁴⁷

Given these concerns and the high fees that a consumer can incur while roaming, we recommend any FCC investigation into bill shock also examine the accessibility of the existing voluntary notification system to non-English speakers, and the potential

⁴⁵ Lagria, Jason, "Re: Ex Parte Disclosure pursuant to 47 CFR §1.1206(b) in CG Docket Nos. 10-207 and 09-158 (Bill Shock) and CC Docket No. 98-170 (Truth in Billing)," *Asian American Justice Center*, June 10, 2013, <http://apps.fcc.gov/ecfs/document/view;NEWECFSESSION=hkfgWLQKgGjCShh3zqY8hHlZ6HCWQMyl4skJTfXlpn17d12WKs7L!-1135238304!-1678543329?id=7022424654>.

⁴⁶ Scurato, Michael, "Re: Notice of Ex Parte Presentation: CG Docket No. 10-207; CG Docket No. 09-158; CC Docket No. 98-170," *National Hispanic Media Coalition*, Mar. 25, 2013.

⁴⁷ Faith Bautista and Mia Martinez, "Bill Shock Among Asian Americans is Far Greater than FCC Data Reveals," *National Asian American Coalition*, Nov. 16, 2010, <http://apps.fcc.gov/ecfs/document/view?id=7020920501>.

disproportionate impact bill shock has on consumers for whom English is not their first language.

VIII. Consumers in Foreign Countries Benefit From Regulations That Address High IMR Fees

Regulators outside the United States have adopted rules that address the high cost of IMR services and lack of consumer education about low-cost alternatives. The Commission should evaluate the effectiveness of these rules as it considers potential action to address IMR-related bill shock.

In June 2015, the EU agreed to eliminate all charges for intra-EU roaming by 2017.⁴⁸ Similarly, governments of the six Gulf Cooperation Council countries agreed to eliminate voice and text roaming charges for intra-GCC roaming by 2019 and reduce intra-GCC international roaming data rates by two-thirds by 2020.⁴⁹

The Asia Pacific Economic Cooperation and Information Working Group helped promulgate best practices for the Asia Pacific Economic Cooperation (“APEC”) countries in 2012 that encouraged carriers to send text alerts, set data limits, and suspend usage once data limits were reached, as opposed to charging overages. These guidelines also recommended that carriers provide both opt-out options and explicit opt-in options to help consumers avoid roaming-related bill shock.⁵⁰ The 2010 APEC 2010 guidelines have an entire section encouraging carriers to educate consumers on alternate roaming technologies, including global SIM cards, purchasing local SIM cards for their international

⁴⁸ European Commission, *supra*, Note 11.

⁴⁹ “GCC Mobile roaming fees to go down,” *Gulf Times*. July 1, 2015, <http://www.gulf-times.com/story/445393/GCC-mobile-roaming-fees-to-go-down>.

⁵⁰ “International Roaming Explained,” *Group Speciale Mobile Association*, July 2012, <http://www.gsma.com/publicpolicy/wp-content/uploads/2012/09/Asia-International-roaming-explained-English.pdf>.

destinations, and notifying consumers of the alternative to cellular networks that could be used as substitutes for roaming (e.g. Wi-Fi).⁵¹

Actions by the EU, GCC and APEC to address IMR-related bill shock reflect international consensus on the tools available to regulators. This consensus is reflected in recommendations put forward by the Organization for Economic Co-operation and Development (OECD) in February 2012. In particular, the OECD recommends that member states take actions to promote awareness of substitutes to high-priced IMR services and provide information about unanticipated data use. In addition, the OECD recommends that if member states find that market dynamics are not sufficient to produce reasonably competitive rates, price regulation of wholesale and retail IMR rates should be considered.⁵²

The proposed Trans-Pacific Partnership (TPP) treaty may also require the Commission to examine the high cost of IMR services. For example, TPP states that parties “shall endeavour to cooperate on promoting transparent and reasonable rates for IMR services that can help promote the growth of trade among the Parties and enhance consumer welfare.”⁵³ While TPP emphasizes that no party is required to regulate international roaming rates, the United States would be required to at the very least promote transparent and reasonable rates for IMR services. NCL has many concerns with the TPP overall, but these provisions could actually benefit consumers.

Given these examples, we must ask why the Commission is not acting to provide American consumers with the same protections enjoyed by consumers overseas? NCL

⁵¹ “Guidelines on the Provision of Consumer Information on International Mobile Roaming,” *Asia Pacific Economic Cooperation*, Jan 2010,

http://www.apec.org/~media/Files/Groups/TEL/2010_IMR_ConsumerGuidelines_TEL42.doc.

⁵² Organization for Economic Co-operation and Development, “Recommendations of the Council on International Mobile Roaming Services,” Feb. 16, 2012,

<http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=271&Lang=en&Book=False>.

⁵³ Trans-Pacific Partnership Ch. 13 Art. 13.6 “International Mobile Roaming,”

<http://www.mfat.govt.nz/downloads/trade-agreement/transpacific/TPP-text/13.%20Telecommunications%20Chapter.pdf>.

urges the Commission to review practices of U.S. wireless carriers with regards to IMR services in the context of other governments' efforts to reduce IMR rates. The Commission should also require that wireless carriers provide relevant information to their subscribers about alternatives to expensive IMR packages, such as purchasing a local SIM card.

IX. Recommendations for Commission Action

The FCC decided to take a “trust but verify” approach in 2011 when it put its bill shock rulemaking on hold. Since then, there have been troubling signs that the U.S. wireless industry’s voluntary notification regime has proven inadequate at protecting consumers from IMR-related bill shock. We argue that this is due in large part to the increased use of smartphones and mobile devices by international travelers and their thirst for data. The Commission should therefore take steps to ensure that the disclosure of high IMR rates—particularly international mobile data roaming rates—do not become an excuse to simply charge consumers exorbitant rates while they are traveling abroad.

To achieve this goal, we recommend several actions to the Commission:

First, the Commission should refresh the record to gather more information on what industry is currently doing to prevent bill shock. A refresh of the record will also empower the Commission to analyze consumer reports regarding the effectiveness of the wireless industry’s voluntary notification framework in reducing bill shock.

The Commission’s 2010 survey found that 30 million Americans have suffered bill shock, with a full 88 percent not receiving any communication from their carriers as they approached their text, call, or data limit.⁵⁴ As Chairman Genachowski said then, “[t]he FCC’s consumer survey provides an important snapshot of the real-world experiences of mobile

⁵⁴ Federal Communications Commission. “FCC SURVEY CONFIRMS CONSUMERS EXPERIENCE MOBILE BILL SHOCK AND CONFUSION ABOUT EARLY TERMINATION FEES,” May 26, 2010, https://apps.fcc.gov/edocs_public/attachmatch/DOC-298415A1.pdf.

customers.”⁵⁵ Since 2010, the widespread proliferation of smartphones and other connected mobile devices combined with more data-intensive applications has dramatically increased the potential for consumers to experience bill shock while roaming internationally.

We recognize that the wireless industry has, since 2011, provided more information to their customers to try and reduce incidences of bill shock. However, we believe that it is necessary to hear from stakeholders on whether these voluntary measures have correlated with reduced rates and severity of IMR-related bill shock and whether, in light of Americans’ increasing use of mobile data, there are further opportunities to reduce IMR bill shock.

Second, the Commission should seek comment on whether actions taken by foreign regulators to reduce incidences of roaming-related bill shock have applicability to U.S. regulation.

In its 2010 NPRM, the Commission sought “comment on what it can learn from the experience with bill shock regulation in the European Union.”⁵⁶ On June 30, 2015, the EU set an example by agreeing to eliminate intra-EU roaming charges by June 2017 across all 28 member states.⁵⁷ Similarly, regulators in the GCC and officials at APEC have taken actions to reduce international roaming rates and incentivize greater consumer education about alternatives to high-cost IMR services. NCL believes that consumers in the U.S. should enjoy protections at least on par with consumers in the EU, GCC and APEC countries. The proposed TPP, should it take effect in the U.S., would also provide impetus for the Commission to examine whether current wireless industry IMR practices should be reformed to promote trade and enhance consumer welfare.

⁵⁵ FCC, “FCC Survey Confirms consumers Experience Mobile Bill Shock and Confusion About Early Termination Fees,” May 26, 2010, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-298415A1.pdf.

⁵⁶ *Id.*

⁵⁷ European Commission, *supra*, note 11.

Third, should the Commission's refresh of the record confirm that additional opportunities exist to reduce bill shock, the Commission should consider additional consumer bill shock protections.

NCL expects that a refresh of the record would find that consumers continue to experience significant levels of bill shock and that there are several opportunities for industry to more adequately notify consumers of IMR charges. We further expect that various consumer organizations will put forth innovative suggestions on how to decrease consumer bill shock. The Commission should study the comments and then consider whether new consumer protections are needed to address the evolving threat of consumer bill shock.

As numerous international regulatory bodies have suggested, such protections could range from requiring that carriers provide consumer information about alternatives to carrier-provided IMR services (such as prepaid local SIM cards) up to wholesale and retail IMR rate regulation.

X. Conclusion

NCL's review of the state of current IMR practices strongly suggests that the time is ripe for the Commission to take another look at bill shock. The high cost and limited usefulness of carrier-provided IMR services for American travelers combined with the threat of inadvertent data consumption brought on by the spread of modern mobile devices means that consumers remain at a significant risk of bill shock and pay dearly—to the tune of \$47 billion and likely to rise to \$90 billion globally in the next few years.

It is therefore imperative that the Commission gathers more data on the current state of bill shock in the United State and evaluates how the FCC can offer the same protections to American consumers that are enjoyed by millions of consumers in other regions of the world. Should the Commission find additional innovative opportunities to

prevent bill shock and that international anti-bill shock regulations have applicability in the U.S., it should move expeditiously to adopt new consumer protections from IMR-driven bill shock.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John D. Breyault". The signature is fluid and cursive, with the first name "John" being the most prominent part.

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APPENDIX

Advertised international data roaming plans for the four major U.S. wireless carriers as of July 2016.

AT&T				
Plan Name	Package Fee	Effective Data Roaming Rate (per MB)	Data Allotment	Data Overage Charge (per MB)
Pay-Per-Use	\$0.00	\$2.05	N/A	N/A
Cruise Ship Pay-Per Use	\$0	\$10.24	N/A	N/A
Passport	\$40	\$0.20	200 MB	\$0.25
Passport Silver	\$60	\$0.20	300 MB	\$0.20
Passport Gold	\$120	\$0.15	800 MB	\$0.15

Sprint				
Plan Name	Package Fee	Effective Data Roaming Rate (per MB)	Data Allotment	Data Overage Charge (per MB)
Sprint Global Roaming Plan (Included with all plans, 2G only)	\$0	N/A	N/A	N/A
Sprint Open World Plan (2G only; U.S., Canada, Latin America only)	\$0	N/A	1 GB	\$0.03
\$15/100MB One-Day Pass for 3G speed	\$15/day	\$0.15	100 MB	N/A (reverts back to 2G speeds)
\$25/200 MB Seven Day Pass for 3G speed	\$25/7 Days	\$0.125	200 MB	N/A (reverts back to 2G speeds)
\$50/500 MB 14-Day Pass for 3G speed	\$50/14 Days	\$0.10	500 MB	N/A (reverts back to 2G speeds)
International Data Pack Add-on (Canada-Mexico Pack)	\$30/\$75/\$125 per month	\$0.545/\$0.43/\$0.39	55/175/325 MB	\$4/MB
International Data Pack Add-on (Multi-Country Pack)	\$40/\$80 per month	\$1.00/\$0.94	40/85 MB	\$10/MB

T-Mobile				
Plan Name	Package Fee	Effective Data Roaming Rate (per MB)	Data Allotment	Data Overage Charge (per MB)
Simple Choice (included with all plans, 2G speeds only)	N/A	N/A	N/A	N/A
Single day pass for 3G speed	\$15/day	\$0.15	100 MB	N/A (reverts back to 2G speeds)
7 day pass for 3G speed	\$25/7 days	\$0.13	200 MB	N/A (reverts back to 2G speeds)
14 day pass for 3G speed	\$50/14 days	\$0.10	500 MB	N/A (reverts back to 2G speeds)

Verizon Wireless				
Plan Name	Package Fee	Effective Data Roaming Rate (per MB)	Data Allotment	Data Overage Charge (per MB)
Pay-as-You-Go International Travel Data	N/A	\$2.05	N/A	N/A
Daily International Travel Pricing/TravelPass (Mexico & Canada)	\$2/day	N/A	Deducts from domestic plan's data allowance	Based on domestic plan's overage rates
Daily International Travel Pricing/TravelPass (TravelPass countries)	\$10/day	N/A	Deducts from domestic plan's data allowance	Based on domestic plan's overage rates
Monthly International Travel Pricing (Mexico & Canada)	\$15/month (incl. 100 voice minutes/text msgs)	\$0.15	100 MB	\$10/100 MB
	\$25/month (incl. 500 voice minutes and sent text messages as well as unlimited received texts)	\$0.025	1 GB	\$20/1GB

Verizon Wireless (cont'd)				
Plan Name	Package Fee	Effective Data Roaming Rate (per MB)	Data Allotment	Data Overage Charge (per MB)
Monthly International Travel Pricing (140+ Countries)	\$25/month	\$0.25	100 MB	\$25/100 MB
	\$40/month (incl. 100 voice minutes and sent text messages as well as unlimited received texts)	\$0.40	100 MB	\$25/100 MB